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10/594,308	09/27/2006	Yasuyuki Arai	0756-7836	3549

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EXAMINER	
WANG, JACK K	

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2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/594,308	ARAI ET AL.	
	Examiner	Art Unit	
	JACK WANG	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/28/2011*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twitchell, JR. (Pub # US 2004/0082296 A1), and further in view of Asauchi (Pub # US 2005/0001718 A1).

Consider claim 1, Twitchell, JR. teaches a product management system comprising: a first resonance circuit (LPRF) (110, Fig. 1); a second resonance circuit (MLG) (180, Fig. 1); and a reader/writer (NIM) (140, Fig. 1) for at least one of reading information stored in a semiconductor device ((RFT) (130, Fig. 1) and writing information in the semiconductor device (RFT) (130, Fig. 1), wherein a first packing material (120, Fig. 1) for packing a product (134, Fig. 1) is provided with the first resonance circuit (LPRF) (110, Fig. 1), wherein a second packing material (184, Fig. 1) for packing the first packing material (120, Fig. 1) is provided with the second resonance circuit (MLG) (180, Fig. 1), wherein the product (134, Fig. 1) is provided with the semiconductor device (RFT) (130, Fig. 1), wherein the second resonance circuit (MLG) (180, Fig. 1) can communicate with the reader/writer (NIM) (140, Fig. 1) and the first resonance circuit (110, Fig. 1), and wherein the first resonance circuit (LPRF) (110, Fig. 1) can communicate with the second resonance circuit (MLG) (180, Fig. 1) and the semiconductor device (RFT) (130, Fig. 1).

Twitchell, JR. does not teach wherein the first resonance circuit comprises a first antenna coil and a first capacitor, wherein the second resonance circuit comprises a second antenna coil and a second capacitor.

In the same field of endeavor, Asauchi teaches the first resonance circuit (311, Fig. 4b) comprises a first antenna coil (3113, Fig. 4b) and a first capacitor (3112, Fig. 4b), wherein the second resonance circuit (30, Fig. 4b) comprises a second antenna coil (301, Fig. 4b) and a second capacitor (inherent within the IF circuit 302, Fig. 4b) [0039 and 0040] for the benefit of providing non-contact communication circuit details.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the first resonance circuit comprises a first antenna coil and a first capacitor, wherein the second resonance circuit comprises a second antenna coil and a second capacitor as shown in Asauchi, in Twitchell, JR. device for the benefit of providing non-contact communication circuit details.

Consider claim 2, Twitchell, JR. clearly shows and discloses the product management system, wherein a communication method between the reader/writer (NIM) (140, Fig. 1) and the first resonance circuit (MLG) (180, Fig. 1), a communication method between the first resonance circuit (MLG) (180, Fig. 1) and the second resonance circuit (LPRF) (110, Fig. 1), and a communication method between the second resonance circuit (LPRF) (110, Fig. 1) and the semiconductor device (130, Fig. 1) are identical to each other [0010].

Consider claim 3, Twitchell, JR. teaches the product management system, except wherein the communication method is an electromagnetic induction method.

In the same field of endeavor, Asauchi teaches the communication method is an electromagnetic induction method [0038] for the benefit of providing non-contact communication between the RFID tags.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the communication method is an electromagnetic induction method as shown in Asauchi, in Twitchell, JR. device for the benefit of providing non-contact communication between the RFID tags.

Consider claim 4, Twitchell, JR. clearly shows and discloses the product management system, wherein a communication method between the reader/writer (NIM) (140, Fig. 1) and the second resonance circuit (MLG) (180, Fig. 1) operate in accordance with Bluetooth standard [0031] is different from a communication method between the first resonance circuit (LPRF) (110, Fig. 1) and the semiconductor device (RTF) (130, Fig. 1) using inductive energy [0028].

Consider claim 5, Twitchell JR. clearly shows and discloses the product management system, wherein the communication method between the reader/writer (NIM) (140, Fig. 1) and the second resonance circuit (MLG) (180, Fig. 1) is any one of an electromagnetic induction method and a microwave method (Bluetooth) [0031].

Consider claim 6, Twitchell, JR. teaches a product management system comprising: a first resonance circuit (LPRF) (110, Fig. 1); a second resonance circuit (MLG) (180, Fig. 1); and a reader/writer (NIM) (140, Fig. 1) for at least one of reading information stored in a semiconductor device (RFT) (130, Fig. 1) and writing information in the semiconductor device (RFT) (130, Fig. 1), wherein a first packing material (120, Fig. 1) for packing a product (134, Fig. 1) is provided with the first resonance circuit (LPRF) (110, Fig. 1), wherein a second

packing material (184, Fig. 1) for packing the first packing material (120, Fig. 1) is provided with the second resonance circuit (MLG) (180, Fig. 1), wherein the product (134, Fig. 1) is provided with the semiconductor device (RFT) (130, Fig. 1), wherein the second resonance circuit (MLG) (180, Fig. 1) can communicate with the reader/writer (NIM) (140, Fig. 1) and the first resonance circuit (LPRF) (110, Fig. 1), wherein the first resonance circuit (LPRF) (110, Fig. 1) can communicate with the second resonance circuit (MLG) (180, Fig. 1) and the semiconductor device (RFT) (130, fig. 1); and wherein a communication range between the reader/writer (NIM) (140, Fig. 1) and the second resonance circuit (MLG) (180, Fig. 1) is longer than a communication range between the first resonance circuit (LPRF) (110, Fig. 1) and the semiconductor device (RFT) (130, Fig. 1).

Twitchell, JR. does not teach wherein the first resonance circuit comprises a first antenna coil and a first capacitor, wherein the second resonance circuit comprises a second antenna coil and a second capacitor.

In the same field of endeavor, Asauchi teaches the first resonance circuit (311, Fig. 4b) comprises a first antenna coil (3113, Fig. 4b) and a first capacitor (3112, Fig. 4b), wherein the second resonance circuit (30, Fig. 4b) comprises a second antenna coil (301, Fig. 4b) and a second capacitor (inherent within the IF circuit 302, Fig. 4b) [0039 and 0040] for the benefit of providing non-contact communication circuit details.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the first resonance circuit comprises a first antenna coil and a first capacitor, wherein the second resonance circuit comprises a second antenna coil and a

second capacitor as shown in Asauchi, in Twitchell, JR. device for the benefit of providing non-contact communication circuit details.

Consider claim 7, Twitchell, JR. clearly shows and discloses the product management system, wherein the communication method between the reader/writer (NIM) (140, Fig. 1) and the second resonance circuit (MLG) (180, Fig. 1) is any one of an electromagnetic induction method and a microwave method (Bluetooth) [0031].

Consider claim 8, Twitchell, JR. clearly shows and discloses the product management system, wherein the semiconductor device (RFT) (130, Fig. 1) is selected from the group of an ID tag, an ID chip, an ID label, an ID seal and an ID sticker [0030].

Consider claims 20 and 21, Twitchell, JR. clearly shows and discloses the product management system, wherein the second packing material (184, Fig. 1) is a transport vehicle [0057 lines 7-12].

3. Claims 9, 11, and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twitchell, JR. (Pub # US 2004/0082296 A1), and further in view of Smolander et al. (Pub # US 2007/0176773 A1) and Arai et al. (Pub # US 2004/0164302 A1).

Consider claim 9, Twitchell, JR. teaches a method comprising: sending at least one of a first signal comprising first information and a first electric power from a reader/writer (NIM) (140, Fig. 1) to a resonance circuit (MLG or LPRF) (180 or 110, Fig. 1); sending at least one of a second signal comprising the first information and a second electric power from the resonance circuit (MLG or LPRF) (180 or 110, Fig. 1) to a semiconductor device (RFT) (130, Fig. 1) in response to a receipt of said at least one of the first signal and the first electric power; sending a

third signal comprising second information from said semiconductor device (RFT) (130, Fig. 1) to the resonance circuit (MLG or LPRF) (180 or 110, Fig. 1) in response to a receipt of said at least one of the second signal and the second electric power by the semiconductor device, sending a fourth signal comprising said second information from the resonance circuit (MLG or LPRF) (180 or 1110, Fig. 1) to the reader/writer (NIM) (140, Fig. 1), wherein the semiconductor device (RFT) (130, Fig. 1) is attached to a product (134, Fig. 1), the product (134, Fig. 1) is contained in a packing material (120, Fig. 1), the resonance circuit (MLG or LPRF) (180 or 110, Fig. 1) is attached to the packing material (120 or 184, Fig. 1) and the reader/writer (NIM) (140, Fig. 1) is disposed outside of the packing material (120 or 184, Fig. 1).

Twitchell, JR. does not teach wherein the resonance circuit comprises thin film integrated circuit portions comprising an antenna coil and a capacitor, wherein said semiconductor device comprises a thin film integrated circuit comprising a thin film transistor, and an antenna.

In the same field of endeavor, Smolander et al. teaches the resonance circuit (22, Fig. 2a) comprises thin film integrated circuit portions [0043] comprising an antenna coil (13, Fig. 2a) and a capacitor (14, Fig. 2a) for the benefit of providing product information through reader interrogation.

Furthermore, in the same field of endeavor, Arai et al. teaches the semiconductor device (RFID tag) comprises a thin film integrated circuit comprising a thin film transistor [0076], and an antenna [0074] for the benefit of providing detail description of integrated circuit device IC label.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the resonance circuit comprises thin film integrated circuit

portions comprising an antenna coil and a capacitor as shown in Smolander et al., and the semiconductor device comprises a thin film integrated circuit comprising a thin film transistor, and an antenna as shown in Arai et al., in Twitchell, JR. method for the benefit of providing product information through reader interrogation, and providing detail description of integrated circuit device IC label.

Consider claim 11, Twitchell JR. clearly shows and discloses the method, wherein the semiconductor device (RFT) (130, Fig. 1) is selected from the group of an ID tag, an ID chip, an ID label, an ID seal and an ID sticker [0029].

Consider claim 13, Twitchell, JR. teaches a product management system comprising: a semiconductor device (RFT) (130, Fig. 1); a resonance circuit (LPRF) (110, Fig. 1); a packing material (120, Fig. 1); and a reader/writer (NIM) (140, Fig. 1) for at least one of reading information stored in the semiconductor device (RFT) (130, Fig. 1) and writing information in the semiconductor device (RFT) (130, Fig. 1), wherein the packing material (120, Fig. 1) for packing a product (134, Fig, 1) is provided with the resonance circuit (LPRF) (110, Fig. 1), wherein the product (134, Fig. 1) is provided with the semiconductor device (RFT) (130, Fig. 1), wherein the resonance circuit (LPRF) (110, Fig. 1) can communicate with the reader/writer (NIM) (140, Fig. 1) and the semiconductor device (RFT) (130, Fig. 1).

Twitchell, JR. does not teach wherein the semiconductor device comprises a thin film integrated circuit comprising a thin film transistor, and an antenna, and wherein the resonance circuit comprises thin film integrated circuit portions, an antenna coil and a capacitor.

In the same field of endeavor, Arai et al. teaches the semiconductor device (RFID tag) comprises a thin film integrated circuit comprising a thin film transistor [0076], and an antenna [0074] for the benefit of providing detail description of integrated circuit device IC label.

Furthermore, in the same field of endeavor, Smolander et al. teaches the resonance circuit (22, Fig. 2a) comprises thin film integrated circuit portions [0043] comprising an antenna coil (13, Fig. 2a) and a capacitor (14, Fig. 2a) for the benefit of providing product information through reader interrogation.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the semiconductor device comprises a thin film integrated circuit comprising a thin film transistor, and an antenna as shown in Arai et al., and the resonance circuit comprises thin film integrated circuit portions comprising an antenna coil and a capacitor as shown in Smolander et al., in Twitchell, JR. device for the benefit of providing detail description of integrated circuit device IC label, and providing product information through reader interrogation.

Consider claim 14, Twitchell, JR. clearly shows and discloses the product management system, wherein a communication method between the reader/writer (NIM) (140, Fig. 1) and the first resonance circuit (MLG) (180, Fig. 1), a communication method between the first resonance circuit (MLG) (180, Fig. 1) and the second resonance circuit (LPRF) (110, Fig. 1), and a communication method between the second resonance circuit (LPRF) (110, Fig. 1) and the semiconductor device (130, Fig. 1) are identical to each other [0010].

Consider claim 15, Twitchell, JR. teaches the product management system, except wherein the communication method is an electromagnetic induction method.

In the same field of endeavor, Smolander et al. teaches the communication method is an electromagnetic induction method [0038] for the benefit of providing non-contact communication between the RFID tags.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the communication method is an electromagnetic induction method as shown in Smolander et al., in Twitchell, JR. device for the benefit of providing non-contact communication between the RFID tags.

Consider claim 16, Twitchell, JR. clearly shows and discloses the product management system, wherein a communication method between the reader/writer (NIM) (140, Fig. 1) and the second resonance circuit (MLG) (180, Fig. 1) operate in accordance with Bluetooth standard [0031] is different from a communication method between the first resonance circuit (LPRF) (110, Fig. 1) and the semiconductor device (RTF) (130, Fig. 1) using inductive energy [0028].

Consider claim 17, Twitchell, JR. clearly shows and discloses the product management system, wherein the communication method between the reader/writer (NIM) (140, Fig. 1) and the second resonance circuit (MLG) (180, Fig. 1) is any one of an electromagnetic induction method and a microwave method (Bluetooth) [0031].

Consider claim 18, Twitchell, JR. clearly shows and discloses the method, wherein the resonance circuit further comprises any one of a battery, a CPU and a memory [0016].

Consider claim 19, Twitchell, JR. clearly clearly shows and discloses the product management system, wherein the resonance circuit further comprises any one of a battery, a CPU and a memory [0016].

4. Claims 10-12, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twitchell, JR. (Pub # US 2004/0082296 A1), and further in view of Arai et al. (Pub # US 2004/0164302 A1).

Consider claim 10, Twitchell, JR. teaches a method comprising: sending at least one of a first signal comprising first information and a first electric power from a reader/writer (NIM) (140, Fig. 1) to a first resonance circuit (MLG) (180, Fig. 1), sending at least one of a second signal comprising the first information and a second electric power from the first resonance circuit (MLG) (180, Fig. 1) to a second resonance circuit (LPRF) (110, Fig. 1) in response to a receipt of said at least one of the first signal and the first electric power, sending at least one of a third signal comprising the first information and a third electric power from the second resonance circuit (LPRF) (110, Fig. 1) to a semiconductor device (RFT) (130, Fig. 1) in response to a receipt of said at least one of the second signal and the second electric power; sending a fourth signal comprising second information from said semiconductor device (RFT) (130, Fig. 1) to the second resonance circuit (LPRF) (110, Fig. 1) in response to a receipt of said at least one of the third signal and the third electric power by the semiconductor device (RFT) (130, Fig. 1), sending a fifth signal comprising said second information from the second resonance circuit (LPRF) (110, Fig. 1) to the first resonance circuit (MLG) (180, Fig. 1), sending a sixth signal comprising said second information from the first resonance circuit (MLG) ((180, Fig. 1) to the reader/writer (NIM) (140, Fig. 1), wherein the semiconductor device (RFT) (130, Fig. 1) is attached to a product (134, Fig. 1), the product (134, Fig. 1) is contained in a second packing material (120, Fig. 1), the second resonance circuit (LPRF) (110, Fig. 1) is attached to the second packing material (120, Fig. 1), the second packing material (120, Fig. 1) is contained in a first

packing material (184, Fig. 1), the first resonance circuit (MLG) (180, Fig. 1) is attached to the first packing material (184, Fig. 1), and the reader/writer (NIM) (140, Fig. 1) is disposed outside of the first packing material.

Twitchell, JR. does not teach wherein said semiconductor device comprises a thin film integrated circuit comprising a thin film transistor, and an antenna.

In the same field of endeavor, Arai et al. teaches the semiconductor device (RFID tag) comprises a thin film integrated circuit comprising a thin film transistor [0076], and an antenna [0074] for the benefit of providing detail description of integrated circuit device IC label.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the semiconductor device comprises a thin film integrated circuit comprising a thin film transistor, and an antenna as shown in Arai et al., in Twitchell, JR. method for the benefit of providing detail description of integrated circuit device IC label.

Consider claim 11, Twitchell JR. clearly shows and discloses the method, wherein the semiconductor device (RFT) (130, Fig. 1) is selected from the group of an ID tag, an ID chip, an ID label, an ID seal and an ID sticker [0029].

Consider claim 12, Twitchell, JR. clearly shows and discloses the method, wherein the first packing material (184, Fig. 1) is selected from the group of a suitcase, a corrugated fiberboard, a container and a transporting vehicle [0057 lines 7-12].

Consider claim 22, Twitchell, JR. clearly shows and discloses the product management system, wherein the first packing material (184, Fig. 1) is a transport vehicle [0057 lines 7-12].

Response to Arguments

5. Applicant's arguments, see Remarks, filed 1/28/2011, with respect to Rejection under 35 USC § 112 first and second paragraph have been fully considered and are persuasive. The Rejection of Claims 6, 13, and 22 has been withdrawn.

6. Applicant's arguments filed 1/28/2011 have been fully considered but they are not persuasive.

Regarding claims 1, 6, 9, 10, and 13, In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Applicant argues that Twitchell does not teach or suggest the possibility of communication between the LPRF 110 and the RFT 130, while the MLG appears to be able to communicate with LPRF 110 and the RFT 130. The Examiner respectfully disagrees. As described in the paragraph 57, Twitchell clearly shows and discloses "a Wireless Reader Tag 110 may acquire a class designation by reading Wireless Reader Tags 110 or Wireless Tags 130 nearest to it, and then store the class designation and other profile information in non-volatile read/write memory". Therefore, Twitchell clearly demonstrate the ability for the LPRF 110 and RFT 130 to communicate between each other.

Furthermore, Applicant argues that Asauchi, Smolander and Arai do not teach, suggest or relate to a gateway or components of gateway. The Examiner respectfully disagrees. The reference of Asauchi, Arai et al., and Smolander et al. are in the same field of endeavor, which provides a non-contact communication between the product and package, which are used to provide more details relates to the invention, whereas the motivation for combine has been disclosed in each of claims. Although, each limitations claimed does not solely disclosed in each of the prior art. However, the Examiner cited each art based on each claim limitation and its relevance to demonstrate the obviousness among the person of ordinary skill in the art, not an anticipation in a single prior art.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACK WANG whose telephone number is (571)272-1938. The examiner can normally be reached on M-F 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Bugg can be reached on 571-272-2998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JACK WANG/
Examiner, Art Unit 2612

/George A Bugg/
Supervisory Patent Examiner, Art Unit 2612